Chapter 84
Planning and Implementation of Cloud Computing in NIT's in India:
Special Reference to VNIT

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ABSTRACT

Cloud computing and Information Network both are emerging facets in the field of Information Science (IS). Cloud computing has potential to bring another wave of changes to organizations. Overall, planning and implementation of cloud computing will be beneficial in the terms of library level as well as institutional level to manage by cloud. In this chapter the authors present RECs/NITs resources to move on for managing cloud computing. Making the decision to use cloud-based services means balancing the elements of cost, risk, and benefit to decide whether those services advance the mission of the library as well as institute. RECs/NITs Libraries can take advantage of the cloud in numerous ways, such as data sharing including discovery tools, current status of research, and software as service which depends on the cloud, e-mail systems and social networking, and so forth. This chapter recommends a road for globalizing Regional Engineering Colleges/National Institutes Technology libraries.

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INTRODUCTION

We can't bind Sun rays,
We can't block the way of Water,
We can't bind knowledge in Libraries,
We can't stop the Technical Revolution,
Similarly, we can't stop progress in Cloud Computing.

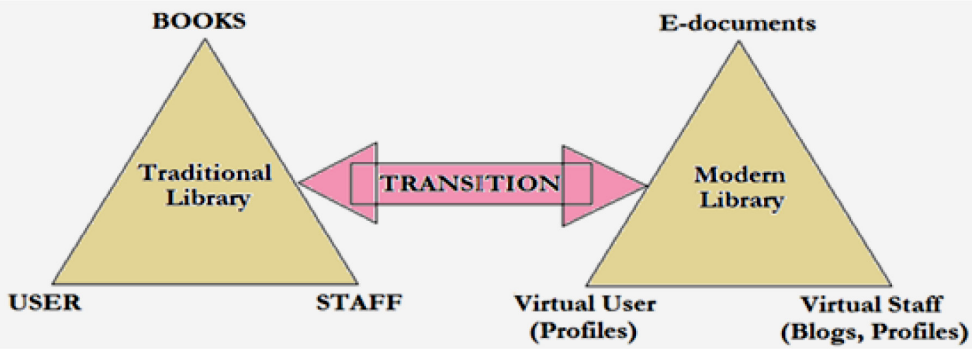
Networking concept is extensively used in the libraries. They have developed robust frameworks for resource sharing and cooperative cataloging, leveraged publisher and aggregator platforms to deliver electronic collections, and created vibrant consortia and groups that share services across regions and countries. Cloud computing is a new paradigm in the delivery of e-resources on demand over the Internet. The technical foundation of cloud computing is based on Service Oriented Architecture (SOA) and virtualization of hardware and software, and Internet technologies. Cloud computing promises to change the way library computing is performed now, lift all technological barriers coming in the way of sharing distributed library resources and provide new tools to make access to global library resources easier and simpler and ensure that both libraries and all users can benefited from remote infrastructure and services.

The NITs (National Institute of Technology in India) have been in existence for 6 decades. They have very good developed hardware and software to manage their resources at institute level. But the resources that have been developed by them have little recognition on global level (Wikipedia, 2013). Hence the institute in general and libraries in particular has tremendous resources that can be put on the cloud thus allowing those resources to go global and sharable. The resources that are to be possibly shared have been further identified in this chapter. Moving on the cloud for the resources need careful consideration about data security, network access speed, skilled manpower, and legal issues to mention a few. There are lot of pros and cons to be considered before moving on to the cloud with well studied advantages and disadvantages.

LIBRARIES MOVING ON CLOUD

The fast growth of technology needs for shifting traditional libraries to modern libraries. Libraries all over the world suffer from common problems like flexibility associated with the digital data, lower level of efficiency, and huge cost involved in managing the entire IT infrastructure themselves. Few options are available when it comes to collaborating with other libraries as well which is the prime reason for subordinate levels of efficiency. Cloud computing would help in bridging the gap between digital libraries and IT. Sharing of data among the libraries will in principle reduce the

Figure 1. Shift from traditional library to modern library



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